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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/739,242

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7590

02/09/2004

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EXAMINER

BARNIE, REXFORD N

ART UNIT

PAPER NUMBER

2643

DATE MAILED: 02/09/2004

16

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/739,242

Applicant(s)

TAENZER ET AL.

Examiner

REXFORD N BARNIE

Art Unit

2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on 04 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) 63-100 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 63-100 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

*R. Barnie*  
REXFORD BARNIE  
PRIMARY EXAMINER  
02/02/04

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 63-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerns (US Pat# 6,144,748) in view of Ishige et al. (US Pat# 5,835,610) or Bren et al. (US Pat# 6,633,645).

Regarding claim 63, Kerns teaches a hearing aid with a speaker, a microphone, a processor and an EEFROM, which can be used in controlling a hearing aid in (see figs.). furthermore, Kerns teaches being able to use a wireless terminal in conjunction with the hearing aid in (see col. 4 lines 28-30) but fails to teach being able to switch automatically from one state to another in response to an incoming signal.

Ishige et al. Teaches an a hearing aid with automatic switching wherein an incoming call can automatically be connected to a transducer via switching means (11 of fig. 2) and by default to a microphone signal (see fig. 2).

Bren et al. teaches an automatic telephone switch for a hearing aid wherein an incoming telephone call can be switched in automatically from a default microphone state and switched back to the default microphone state if necessary in (see col. 3 lines 17-28, lines 53-60 and col. 4 lines 12-27).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Ishige or Bren into that of Kerns thus making it possible to automatically switch in an incoming call to a speaker for telephone conversations without having to do so manually thus saving a user time.

Regarding claims 64-65, the combination teaches a hearing aid or a telephone state.

Regarding claim 66, An incoming call is sent by a ring signal from a switching facility and would be received by the hearing aid user based on the combination. Therefore, a ring signal would be an indication of an incoming call and rendered obvious by the combination such as (see col. 3 lines 25-27 of Bren).

Regarding claim 67, According to the combination whether to remain in a default microphone state would be dependent on a second incoming signal namely; a telephone signal.

Regarding claim 68, The combination teaches a telephonic communication thus a bi-directional communication.

Regarding claim 69, The examiner takes official notice that it's well known to switch between a hearing aid state and a telephone state when using a hearing aid via a manual switch since it's conventional to do so.

Claims 70 and 75-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerns (US Pat# 6,144,748) in view of Ishige et al. (US Pat# 5,835,610) or Bren et al. (US Pat# 6,633,645) and further in view of Taenzer (US Pat# 5,751,820)

Regarding claims 70 and 75-77, the combination fails to teach the claimed subject matter in detail but Taenzer teaches a hearing aid capable of functioning in conjunction with a telephone, which has the claimed limitations in (see col. 8 lines 2-14, col. 9 line 66-col. 10 line 22, col. 11 line 66-col. 12 line 5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Taenzer into that of the combination to preserve power (see col. 10 of Taenzer).

Claims 71-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerns (US Pat# 6,144,748) in view of Ishige et al. (US Pat# 5,835,610) or Bren et al. (US Pat# 6,633,645) and further in view of Anderson (US Pat# 5,721,783, cited by applicant).

Regarding claims 71-74, The combination fails to teach the claimed subject matter in detail but Anderson teaches a hearing aid with means which can be used in

controlling signals including hearing aid signals and external communications including telephone signals in (see figs. And 948 of fig. 9, col. 23 lines 26-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Anderson into that of the combination thus making it possible to control a hearing aid based on the hearing loss of a user to enhance signal intelligibility.

Claims 78- 85 and 88-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishige et al. (US Pat# 5,835,610) in view of Taenzer et al. (US Pat# 5,751,820) or Bren et al. (US Pat# 6,633,645).

Regarding claim 78, Ishige teaches a hearing aid with the claimed limitations in (see fig. 2 and col. 4) but fails to teach in detail the possibility of automatically changing states from one state to another i.e. a hearing aid state to a telephone state automatically even though arguably that's how it would function since Ishige makes no mention of a manual switch.

Taenzer teaches a hearing aid device which can wake up from a sleep state in response to a telephone call in part by using a detector, processor and so forth in (see col. 7 line 67-col. 8 line 14, col. 9 line 66-col. 10 line 23, col. 11 lines 10-25, col. 11 line 66-col. 12 line 5, col. 12 lines 29-39, lines 56-67, col. 13 lines 31-39). Furthermore, according to Taenzer, a DSP can be employed and a detector (30) can be used for receiving signals.

Bren teaches a hearing aid which can switch back and forth from a hearing aid state to a telephone state in response to an incoming call in (see fig. 2, col. 3 lines 18-27, col. 4 lines 12-27).

Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to incorporate the teaching of either Taenzer or Bren into that of Ishige thus making it possible to automatically switch in an incoming call to a speaker for telephone conversations without having to do so manually thus saving a user time.

Regarding claims 79-81, The combination teaches being able to determine when a telephone signal is received and acting accordingly by switching into a telephone mode wherein the telephone could be a cell phone.

Regarding claims 82-83, The combination teaches and renders obvious the ability to receive and make calls by using a telephone device.

Regarding claim 84, The combination including Bren or Ishige teaches being able to switch back to a microphone mode when needed. Bren teaches being able to go back to a default mode.

Regarding claim 85, The combination teaches being able to switch to a sleep/wake mode or normal mode based on usage of the hearing aid device as means of conserving power.

Regarding claim 88, Ishige teaches a hearing aid with the claimed limitations in (see fig. 2 and col. 4) but fails to teach in detail the possibility of automatically changing states from one state to another i.e. a hearing aid state to a telephone state

automatically even though arguably that's how it would function since Ishige makes no mention of a manual switch.

Taenzer teaches a hearing aid device which can wake up from a sleep state in response to a telephone call in part by using a detector, processor and so forth in (see col. 7 line 67-col. 8 line 14, col. 9 line 66-col. 10 line 23, col. 11 lines 10-25, col. 11 line 66-col. 12 line 5, col. 12 lines 29-39, lines 56-67, col. 13 lines 31-39). Furthermore, according to Taenzer, a DSP can be employed and a detector (30) can be used for receiving signals.

Bren teaches a hearing aid which can switch back and forth from a hearing aid state to a telephone state in response to an incoming call in (see fig. 2, col. 3 lines 18-27, col. 4 lines 12-27).

Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to incorporate the teaching of either Taenzer or Bren into that of Ishige thus making it possible to automatically switch in an incoming call to a speaker for telephone conversations without having to do so manually thus saving a user time.

Note that a bi-directional communication including a telephone conversation requires usage of a microphone device for input signals from a hearing aid user (see col. 3 lines 6-22 of Taenzer).

Regarding claims 89-92, the combination teaches being able to receive an incoming call from a remote telephone usually through a ring signal sent from a central office and renders obvious the ability to make a telephone call if desired in (see Bren)



Regarding claims 93-94, the combination including Taenzer teaches a power conservation mode where a hearing aid device can be placed in a sleep/wake state based on the status of the hearing aid device if idle for instance.

Claims 86, 87 and 95-100 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishige et al. (US Pat# 5,835,610) in view of Taenzer et al. (US Pat# 5,751,820) or Bren et al. (US Pat# 6,633,645) and further in view of Anderson (US Pat# 5,721,783, cited by applicant).

Regarding claims 86 and 87, The combination fails to teach the claimed subject matter in detail but Anderson teaches a hearing aid with means which can be used in controlling signals including hearing aid signals and external communications including telephone signals in (see figs., 948 of fig. 9, col. 23 lines 26-35 and entire disclosure).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Anderson into that of the combination thus making it possible to control a hearing aid based on the hearing loss of a user to enhance signal intelligibility.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to **REXFORD BARNIE** whose telephone number is (703) 306-2744. The examiner can normally be reached on Monday through Friday from 8:30 to 6:00p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz, can be reached on (703) 305-4708.

Any response to this action should be mailed to:

Commissioner of patents and Trademarks

Washington, D.C. 20231

or faxed to (703) 872-9314 and labeled accordingly (please label

**"PROPOSED/INFORMAL" or "FORMAL"**).

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, V.A., Sixth Floor (Receptionist).

Art Unit: 2643

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 306-0377

**REXFORD BARNIE**

**PRIMARY EXAMINER**

02/02/04

*RBarnie*  
**REXFORD BARNIE**  
**PRIMARY EXAMINER**